Title (en)

ELECTRIC RESISTANCE WELDED STEEL TUBE FOR HIGH-STRENGTH HOLLOW STABILIZER, METHOD FOR MANUFACTURING ELECTRIC RESISTANCE WELDED STEEL TUBE FOR HIGH-STRENGTH HOLLOW STABILIZER, HIGH-STRENGTH HOLLOW STABILIZER, AND METHOD FOR MANUFACTURING HIGH-STRENGTH HOLLOW STABILIZER

Title (de)

WIDERSTANDSGESCHWEISSTES STAHLROHR FÜR HOCHFESTEN HOHLSTABILISATOR, VERFAHREN ZUR HERSTELLUNG EINES WIDERSTANDSGESCHWEISSTEN STAHLROHRS FÜR HOCHFESTEN HOHLSTABILISATOR, HOCHFESTER HOHLSTABILISATOR UND VERFAHREN ZUR HERSTELLUNG EINES HOCHFESTEN HOHLSTABILISATORS

Title (fr)

TUBE EN ACIER SOUDÉ PAR RÉSISTANCE ÉLECTRIQUE POUR STABILISATEUR CREUX À HAUTE RÉSISTANCE ET PROCÉDÉ DE FABRICATION D'UN TEL TUBE, STABILISATEUR CREUX À HAUTE RÉSISTANCE ET SON PROCÉDÉ DE FABRICATION

Publication

EP 3358028 B1 20201118 (EN)

Application

EP 16850567 A 20160826

Priority

- JP 2015191003 A 20150929
- JP 2016003880 W 20160826

Abstract (en)

[origin: EP3358028A1] Provided are an electric resistance welded steel pipe for a high-strength hollow stabilizer excellent in terms of corrosion fatigue resistance, a method for manufacturing the electric resistance welded steel pipe for a high-strength hollow stabilizer, a high-strength hollow stabilizer, and a method for manufacturing the high-strength hollow stabilizer. An electric resistance welded steel pipe manufactured by performing hot diameter reduction rolling on an electric resistance welded steel pipe manufactured by performing an electric resistance welded pipe manufacturing process on a steel sheet has a chemical composition containing, by mass%, C: 0.20% to 0.40%, Si: 0.1% to 1.0%, Mn: 0.1% to 2.0%, Al: 0.01% to 0.10%, Cr: 0.01% to 0.5%, Ti: 0.01% to 0.05%, B: 0.0005% to 0.005%, Ca: 0.0001% to 0.0050%, N: 0.0050% or less, and the balance being Fe and inevitable impurities and a microstructure in which each of the amounts of TiS particles having a particle size of 10 µm or more and MnS particles having a particle size of 10 µm or more is decreased to 0.1% or less in terms of cleanliness. With this, the electric resistance welded steel pipe for a hollow stabilizer has an excellent fatigue resistance (corrosion fatigue resistance) even in a corrosive environment, exhibiting a high strength (high hardness) represented by a hardness of 400 HV or more and less than 550 HV in terms of Vickers hardness and having the average grain size of prior austenite grains of 50 µm or less when subjected to cold forming followed by a quenching and tempering treatment.

IPC 8 full level

C22C 38/00 (2006.01); **B21C 37/08** (2006.01); **C21D 8/10** (2006.01); **C21D 9/08** (2006.01); **C21D 9/50** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/20** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/38** (2006.01); **C22C 38/42** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)

C21D 8/10 (2013.01 - EP KR US); **C21D 8/105** (2013.01 - EP US); **C21D 9/08** (2013.01 - EP KR US); **C21D 9/085** (2013.01 - EP US); **C21D 9/50** (2013.01 - EP KR US); **C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/005** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP KR US); **C22C 38/04** (2013.01 - EP KR US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/20** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP KR US); **C22C 38/38** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/54** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP US); B21C 37/08 (2013.01 - EP US); B60G 2206/427 (2013.01 - EP US); C21D 2211/001 (2013.01 - EP US)

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